SAMSUNG

E-MANUAL

Contents

Channel Setting

1 Using the INFO button (Now & Next guide)

2 Memorizing channels

7 Using the Channel menu

21 Blocking Programs

23 Other Features

Basic Features

28 Changing the Preset Picture Mode

30 Samsung MagicAngle

31 Adjusting Picture Settings

37 Calibrating the Screen Display

43 Changing the Picture Options

51 Changing the Preset Sound Modes

52 Adjusting Sound Settings

56 Executing initial setup

57 Setting the Time

59 Using the Sleep Timer

60 Setting the On/Off Timer

65 Economical Solutions

66 Other Features

73 Using the Source List

74 Connecting a USB Device

80 Using the Media Contents

82 Using the Soccer Mode

83 Playing the Photos / Videos / Music

91 Viewing the e-Manual

92 Using the Self Diagnosis

96 Updating the Software

97 Changing the Use Mode

98 Viewing the Contact Samsung

❑ Using the INFO button (Now & Next guide)

The display identifies the current channel and the status of certain audio-video settings.

The Now & Next guide shows daily TV program information for each channel according to the broadcasting time.

- When you press the **INFO** button, a channel information banner will appear on the top of the screen. And then press the **ENTER** button, you can see the details of the program.

- Scroll ◀ ▶ to view information for a desired program while watching the current channel.

❑ Memorizing channels

Your TV memorizes channels and adds the memorized channels to the **Channel List** with the **Auto Program** function. Before your TV can memorize channels, you must specify the signal source **Both**, **Air**, or **Cable**.

Auto Program

MENU → Broadcasting → Auto Program → ENTER

Scans for channels automatically and stores them in the TV's memory.

To start Auto Program, follow these steps:

1 Select Auto Program, and then press ENTER.

2. Press the ENTER button to select Start.

3. Select Air or Cable or Both by highlighting and then pressing ENTER.

4. Select **Scan**, and then press **ENTER**↵. **Auto Program** starts.

- After all the available channels are stored, **Auto Program** removes scrambled channels. When done, the **Auto Program** menu then reappears. This process can take up to 30 minutes.
- Automatically allocated program numbers may not correspond to actual or desired program numbers. If a channel is locked, the **PIN** input window appears.

How to Stop Auto Programming

1. Press the **ENTER**↵ button to select **Stop**.
2. A message will ask **Stop Auto Program?**. Select **Yes** by pressing the ◀ or ▶ button.
3. Press the **ENTER**↵ button.

   ✎ When you select **Change Settings**, antenna setting screen appears. You can set antenna settings and start channel search again.

   ✎ Press the **Scan Again** to restart channel search.

Antenna

MENU → Broadcasting → Antenna → ENTER

To begin the memorizing procedure, follow these steps:

1. Select Antenna, and then press ENTER.
2. Select the source of your TV signal, Air or Cable.

Selecting Air or Cable also changes the actual signal input from Air to Cable or Cable to Air.

❑ Using the Channel menu

■ Channel List

MENU → Broadcasting → Channel List → ENTER

The Channel List contains the channels your TV displays (added channels) when you press the channel button. You can view channel information, Added Ch., Edit Favorites, Favorites 1 - Favorites 5. Press ▶ (Mode) button to change the channel mode.

When you press the **CH LIST** button, Channel List screen is displayed at once.

Mode

- **Antenna**: Switch between **Air** and **Cable**.
- **Edit Favorites**: Set channels you watch frequently as favorites. Add or delete the selected channel in **Favorites 1** - **Favorites 5**.

  For detailed information about using **Edit Favorites**, refer to “**Edit Favorites**”.

- **Favorites 1** - **Favorites 5**: Show all favorite channels, arranged in up to five groups. Each group has a separate screen.

  The TV displays **Favorites 1** - **Favorites 5** only if you have added favorites using Edit Favorites.

- **Added Ch.**: Show all added channels.

Guide

MENU → Broadcasting → Guide → ENTER

The EPG (Electronic Program Guide) information is provided by broadcasters. Using program schedules provided by broadcasters, you can specify programs you want to watch in advance so that the channel automatically changes to the selected program channel at the specified time. Program entries may appear blank or out of date depending on a channel status.

- A (Quick Nav): Viewing the TV programs on the list quickly using ◀/▶ buttons.
- B (Channel category): Select the type of channels you want to display.
- C (Schedule Manager): Moves to the reserved programs in Schedule Manager.

Schedule Manager

MENU → Broadcasting → Schedule Manager → ENTER

You can set a desired channel to be displayed automatically at the intended time. In addition, you can view, modify or delete a channel you have reserved to watch.

You must set the current time first using the Time → Clock function in the System menu to use this function.

1. Press the Schedule on the Schedule Manager screen. The Schedule Viewing menu appears.
2. Press the ▲/▼/◀/▶ buttons to set each option menu.
    - Antenna: Select the desired broadcasting signal.
    - Channel: Select the desired channel.

- **Repeat**: Select **Once**, **Manual**, **Sat~Sun**, **Mon~Fri** or **Everyday**. If you select **Manual**, you can set the day you want.

  A check (✓) mark indicates a day you selected.

- **Date**: You can set a desired date.

  Date is available only when you select **Once** in **Repeat**.

- **Start Time**: You can set the start time you want.

If you want to edit or cancel a reserved schedule, select the reserved schedule on **Schedule Manager**. Then press the **ENTER** button and select the **Edit** or **Delete**.

Edit Channel

MENU → Broadcasting → Edit Channel → ENTER

You can add or delete channels.

Deleting a channel from the channel list

1. Go to Edit Channel screen.
2. Press the ▲/▼ buttons to select the desired channel, and then press ENTER button. The (✓) mark indicates the channel you've selected.

   You can select more than one channel.

   Press ENTER button again to deselect the channel.
3. Press B (Delete) button. The selected channel has been deleted from the channel list.

Adding a channel to the channel list

1. On the **Edit Channel** screen, press the **TOOLS** button, and then select the **Category**.
2. Select **All** and press the **OK** button. A deleted channel appears in **All** channel list.

   Your TV will display all channels, including channels you deleted from the channel list, on the **All**.

   A gray-colored channel indicates the channel has been deleted.
3. Select a deleted channel, and then press the B (**Add**) button.

Using the colored and function buttons with the **Edit Channel**.

- **B** (**Delete** / **Add**)
  - **Delete**: Deletes a channel from the channel list.
  - **Add**: Adds a deleted channel. It only appears when you select the deleted channel in **All**.
- **C** (**Lock** / **Unlock**): Lock a channel so that the channel cannot be selected and viewed.

This function is available only when the **Channel Lock** is set to **On**.

The PIN input screen appears. Enter your 4-digit PIN, the default of which is “0-0-0-0”. Change the PIN using the **Change PIN** option.

- D (**Select All** / **Deselect All**): Selects or deselects all channels at once.
- 0~9 (**Go To**): Goes to channel directly by pressing numbers (0~9).
- ◆ (**Page**): Moves to next or previous page.

- (**Tools**): Displays the option menu. The option menu items that appear may differ depending on the channel status and type.
  - **Antenna**: Select the desired broadcasting signal.
  - **Category**: Change the channel mode to **All**, **Added Ch.**, **Recently Viewed**, **Mostly Viewed**. The selected channel mode is displayed.
  - **Edit Favorites**: Go to **Edit Favorites** screen directly.
  - **Rename Channel** (analog channels only): Assign a name of up to five characters to a channel. For example, Food, Golf, etc. This makes it easier to find and select the channel.
  - **Information**: Display details of the selected program.

■ Edit Favorites TOOLS

MENU → Broadcasting → Edit Favorites → ENTER

You can add, edit or delete favorite channels.

Adding a channel to the Favorites 1 - Favorites 5

1. Go to Edit Favorites screen.
2. Press the ▲/▼ buttons to select the desired channel, and then press ENTER button.
3. Choose a specific favorite list among Favorites 1 - Favorites 5 using B (Change Fav.) button, and then press the D (Add) button. The selected channel has been added in Favorites 1 - Favorites 5.

   One favorites channel can be added in several of favorites among Favorites 1 - Favorites 5.

Deleting a channel from the Favorites 1 - Favorites 5

1. On the Edit Favorites screen, select the favorite list using B (Change Fav.) button.
2. Move to favorite list, and then select the desired channel you want to delete.
3. Press the D (Delete) button. The selected channel has been deleted from the Favorites 1 - Favorites 5.

   If you want to change the favorite channel order, press the A (Change order) button and change the order using ▲/▼ buttons.

Using the colored and function buttons with the **Edit Favorites**.

- **A** (**Category** / **Change order**)
  - **Category**: Changes the channel mode to **Added Ch.**, **Recently Viewed**, **Mostly Viewed**. The selected channel mode is displayed.
  - **Change order**:change the favorite channel order.
- **B** (**Change Fav.**): Changes favorite list among Favorites 1-5.
- **C** (**Select All** / **Deselect All**): Selects or deselects all channels at once.
- **D** (**Add** / **Delete**)
  - **Add**: Adds selected channels to Favorites1-5.
  - **Delete**: Delete a favorite channel from Favorites1-5.

- 0~9 (**Go To**): Goes to channel directly by pressing numbers (0~9).
- ⇕ (**Page**): Moves to next or previous page.
- (**Tools**): Displays the option menu. The option menu items that appear may differ depending on the channel status and type.
  - **Copy to Favorites**: Edit the selected favorite channel in **Favorites 1-5**. You can add or delete from favorite list.
  - **Rename Favorites**: Assign your own favorite channel name.
  - **Antenna**: Select the desired broadcasting signal.
  - **Edit Channel**: Add or delete channels.
  - **Information**: Display details of the selected program.

❑ Blocking Programs

■ Program Rating Lock

MENU → Broadcasting → Program Rating Lock → ENTER

- Program Rating Lock: Prevent unauthorized users, such as children, from watching unsuitable program with a user defined 4-digit PIN code.

  The PIN input screen appears before the setup screen.

  Enter your 4-digit PIN, the default of which is 0-0-0-0. Change the PIN using the Change PIN option.

Channel Lock

MENU → Broadcasting → Channel Lock → ENTER

Lock channels to prevent unauthorized users, such as children, from watching unsuitable program.

The PIN input screen appears. Enter your 4-digit PIN, the default of which is “0-0-0-0”.

❑ Other Features

■ Channel Settings

MENU → Broadcasting → Channel Settings → ENTER

- Fine Tune

  (analog channels only)

  If the reception is clear, you do not have to fine tune the channel, as this is done automatically during the search and store operation. If the signal is weak or distorted, fine tune the channel manually.

  Fine tuned channels that have been saved are marked with an asterisk “*” on the right-hand side of the channel number in the channel banner.

  To reset the fine-tuning, select Reset.

- **Color System**

  (analog channels only)

  Normally the TV can receive image and sound with good quality in **Auto** mode. This mode detects the color signal sources automatically. If the color implementation is unsatisfactory, select any of **PAL-M**, **PAL-N** or **NTSC**.

Auto Run Data Service

MENU → Broadcasting → Channel Settings → Auto Run Data Service → ENTER

Turn the Data Service Auto-Run on or off. If Auto-Run is turned on, data service starts automatically with no user prompt. Enabling certain features of your system may prevent Data Service Auto-Run from running.

Caption TOOLS

(On-Screen Text Messages)

MENU → Broadcasting → Caption → ENTER

- Caption: You can switch the caption function on or off. If captions are not available, they will not be displayed on the screen.

  The Caption feature does not work with devices connected to the TV through the Component, HDMI input jacks or D-Sub.

- Caption Mode: You can select the desired caption mode.

  The availability of captions depends on the program being broadcasted.

  CC1~CC4 / Text1~Text4: (analog channels only) The Analog Caption function operates in either analog TV channel mode or when a signal is supplied from an external device to the TV. (Depending on the broadcasting signal, the Analog Caption function may or may not work with digital channels.)

Audio Options

MENU → Broadcasting → Audio Options → ENTER

- Audio Language TOOLS

  (digital channels only)

  Change the default value for audio languages.

  The available language may differ depending on the broadcast.

- **Multi-Track Sound** TOOLS

  (analog channels only)

  Select an option using the ▲/▼ buttons, and then press **ENTER**↵.

  Mono: Choose for channels that are broadcasting in mono or if you are having difficulty receiving a stereo signal.

  Stereo: Choose for channels that are broadcasting in stereo.

  SAP: Choose to listen to the Separate Audio Program, which is usually a foreign-language translation.

  Depending on the program being broadcast, you can listen to **Mono**, **Stereo** or **SAP**.

❑ Changing the Preset Picture Mode

■ Picture Mode TOOLS

MENU → Picture → Picture Mode → ENTER

Picture modes apply preset adjustments to the picture. Select a mode using the ▲/▼ buttons, and then press ENTER.

When connecting a PC, you can only select Entertain and Standard.

- **Dynamic**: Suitable for a bright room.
- **Standard**: Suitable for a normal environment.
- **Movie**: Suitable for watching movies in a dark room.
- **Entertain**: Suitable for watching movies and games.

  It is only available when connecting a PC.

❑ Samsung MagicAngle For T22E310 Model

MENU → Picture → Samsung MagicAngle

MagicAngle lets you view optimal screen quality from almost any viewing position. By setting an appropriate value for each position, you can view a high quality picture, whether you are viewing the screen from an angle below and above.

- **Samsung MagicAngle**

  Select **Lean Back Mode** if viewing below the screen and **Standing Mode** if viewing above.

- **Mode**

  Determines the amount of adjustment. Numbers closer to 10 are best for lower viewing positions.

  When **Samsung MagicAngle** is set to **Lean Back Mode** or **Standing Mode**, **Gamma** is not available.

❑ Adjusting Picture Settings

■ Backlight / Contrast / Brightness / Sharpness / Color / Tint (G/R)

MENU → Picture → Backlight → ENTER

Your television has several options for adjusting picture quality. Select an option using the ▲/▼/◀/▶ buttons, and then press **ENTER**.

NOTE

- When you make changes to **Backlight**, **Contrast**, **Brightness**, **Sharpness**, **Color** or **Tint (G/R)**, the OSD will be adjusted accordingly.
- When connecting a PC, you can only make changes to **Backlight**, **Contrast**, **Brightness**, and **Sharpness**.
- You can adjust and store settings for each external device connected to the TV.
- Lowering picture brightness reduces power consumption.

■ Picture Size TOOLS

MENU → Picture → Picture Size → ENTER

Picture Size provides various picture size and aspect ratio options. Select an option using the ▲/▼/◀/▶ buttons, and then press ENTER.

- Picture Size: If you have a cable box or satellite receiver, it may have its own set of screen sizes as well. However, we highly recommend you use your TV's 16:9 mode most of the time.

16:9: Sets the picture to 16:9 wide screen mode.

Zoom1: Magnifies the picture moderately. Cuts off the top and sides.

Zoom2: Magnifies the picture more than **Zoom1**.

Wide Fit: Enlarges the aspect ratio of the picture so it fits the entire screen.

4:3: Sets the picture to **4:3** mode.

NOTE Do not set your TV to **4:3** format for a long time. The borders displayed on the left and right, or top and bottom of the screen may cause image retention (screen burn) which is not covered by the warranty.

Screen Fit: When your TV inputs HDMI (720p / 1080i / 1080p) or Component (1080i / 1080p) signals, displays the full image without any cut-off.

Custom: Magnifies or shrinks 16:9 pictures vertically and/or horizontally. A magnified or shrunk picture can be moved left, right, up, and down.

- **Position**: Adjusts the picture position. **Position** is only available if **Picture Size** is set to **Zoom1**, **Zoom2**, **Wide Fit**, or **Screen Fit**.

  To use the **Position** function after selecting **Zoom1**, **Zoom2**, **Wide Fit** or **Screen Fit**, follow these steps:

  1. Select the **Position**, and then press the **ENTER** button.
  2. Select the **Position** button, and then press the **ENTER** button.
  3. Press the ▲/▼ button to move the picture up or down.
  4. Press the **ENTER** button.

- If you want to reset the pictures to its original position, select **Reset** in the **Position** screen, and then press **ENTER**. The picture will be reset to its default position.

To use the **Position** function after selecting **Screen Fit** when connected to an HDMI (1080i/1080p) or Component (1080i/1080p) source, follow these steps:

1. Select the **Position**, and then press the **ENTER** button.
2. Select the **Position** button, and then press **ENTER** button.
3. Press the ▲/▼/◀/▶ button to move the picture.
4. Press the **ENTER** button.

If you want to reset the pictures to its original position, select **Reset** in the **Position** screen, and then press **ENTER**. The picture will be reset to its default position.

- HD (High Definition): 16:9 - 1080i/1080p (1920x1080), 720p (1280x720)
- You can adjust and store settings for each external device you have connected to an input on the TV.
- Picture Sizes available by Input Source:

Input Source	Picture Size
ATV, AV, Component (480i, 480p)	16:9, Zoom1, Zoom2, 4:3, Custom
DTV(1080i), Component (1080i, 1080p), HDMI (720p, 1080i, 1080p)	16:9, Wide Fit, 4:3, Screen Fit, Custom

❑ Calibrating the Screen Display

Using Your Product as a Computer (PC) Display

Entering the Video Settings

For your product to work properly as a computer display, you must enter the correct video settings.

- Depending on your version of Windows and your video card, the procedure on your PC will probably differ slightly from the procedure presented here.
- However, the same basic information will apply in most cases. (If not, contact your computer manufacturer or Samsung Dealer.)

1. Click “Control Panel” on the Windows start menu.
2. Click “Appearance and Themes” in the “Control Panel” window. A display dialog box appears.

3. Click “Display”. Another display dialog box appears.
4. Click the “Settings” tab on the display dialog box.
   – On the Settings tab, set the correct resolution (screen size). The optimal resolution for this product is 1366 x 768 and 1920 x 1080 (21.5 inches model only).
   – If a vertical-frequency option exists on your display settings dialog box, select “60” or “60 Hz”. Otherwise, just click “OK” and exit the dialog box.

PIP

MENU → Picture → PIP → ENTER

View two sources on the TV at the same time.

NOTE

- For PIP sound, refer to the **Sound Select** instructions.
- If you turn the TV off while watching in the PIP mode, the PIP function is reset to off. When you turn your TV on, you must turn PIP on again to watch in the PIP mode.

- You may notice that the picture in the PIP window becomes slightly unnatural when you use the main screen to view a game or karaoke.
- The sub-picture size can be set by three modes.
  - **minimum**
  - **medium**
  - **maximum** (a quarter of screen size)

- PIP Settings

Main picture	Sub picture
TV, AV, Component, HDMI/DVI	TV, AV, Component, HDMI/DVI

		main screen			
		TV	AV	Component	HDMI/DVI
sub picture	TV	X	X	O	O
	AV	X	X	X	O
	Component	O	X	X	O
	HDMI/DVI	O	O	O	X

O: Available / X: Not Available

- **PIP** (**Off** / **On**): Activate or deactivate the **PIP** function.
- **Source**: Select your desired source, such as **TV**, **HDMI/DVI**, **AV**, **Component** and so on.
- **Antenna**: Select either **Air** or **Cable** as the input source for the sub-screen.
- **Channel**: Select the channel for the sub-screen.
- **Size**: Select a size for the sub-picture.
- **Position**: Select a position for the sub-picture.
- **Sound Select**: You can choose to listen to the sound from the **Main** picture or the **Sub** picture.

❑ Changing the Picture Options

■ Advanced Settings

MENU → Picture → Advanced Settings → ENTER

Advanced Settings are available in the Standard and Movie modes.

To use, select an option using the ▲/▼/◀/▶ buttons, and then press ENTER.

When connecting a PC, you can only make changes to the White Balance and Gamma.

- Dynamic Contrast (Off/Low/Medium/High): Adjusts the screen contrast.
- Black Tone (Off/Dark/Darker/Darkest): Select the black level to adjust the screen depth.
- Flesh Tone: Emphasizes pink “Flesh Tone.”

- **RGB Only Mode** (**Off**/**Red**/**Green**/**Blue**): Displays the **Red**, **Green** and **Blue** color for making fine adjustments to hue and saturation.
- **Color Space**: Adjusts the range of colors (the color gamut) available to create images.

  ✎ Adjust **Auto** and **Native** to set **Color Space**.
- **White Balance**: Adjusts the color temperature for a more natural picture.

  R-Offset / **G-Offset** / **B-Offset**: Adjusts each color's (red, green, blue) darkness.

  R-Gain / **G-Gain** / **B-Gain**: Adjusts each color's (red, green, blue) brightness.

  Reset: Resets the White Balance to its default settings.

- **Gamma**: Adjusts the primary color intensity.
- **Motion Lighting**: Reduces power consumption by reducing screen brightness when the picture on the screen is motionless.

  When you change the **Backlight**, **Contrast**, or **Brightness**, the TV sets **Motion Lighting** to **Off**.

  Only available in **Standard** mode.

Picture Options

MENU → Picture → Picture Options → ENTER

Select an option using the ▲/▼/◀/▶ buttons, and then press ENTER.

When connecting a PC, you can only make changes to Color Tone.

- Color Tone (Cool/Standard/Warm1/Warm2)

  Warm1 or Warm2 will be deactivated when the picture mode is Dynamic.

  You can adjust and store settings for each external device connected to an input on the TV.

- **Digital Clean View** (**Off**/**Low**/**Medium**/**High**/**Auto**/**Auto Visualization**): If the broadcast signal received by your TV is weak, you can activate the **Digital Clean View** feature to reduce any static and ghosting that may appear on the screen.

  - When the signal is weak, try each option until the TV displays best picture. **Auto Visualization**: When changing analog channels, displays signal strength.
  - Only available for analog channels.
  - When the **INFO** button is pressed, the signal strength bar is displayed.
  - When the bar is green, you are receiving the best possible signal.

- **MPEG Noise Filter** (**Off**/**Low**/**Medium**/**High**/**Auto**): Reduces MPEG noise to provide improved picture quality.

- **HDMI Black Level**: Lets you select the black level on the screen to adjust the screen depth.

  ✎ Available only in HDMI mode (RGB signals).

- **Film Mode**: Sets the TV so that it senses and then processes film signals from all sources automatically and adjusts the picture for optimum quality.

  ✎ Available in TV mode and external input mode which supports SD (480i / 576i) and HD (1080i) signals.

  ✎ If the screen does not seem natural, change its option to **Off** / **Auto1** / **Auto2** in **Film Mode**.

- **LED Clear Motion**: Removes drag from fast scenes with a lot of movement to provide a clear picture.

Picture Off

MENU → Picture → Picture Off → ENTER

The TV screen is turned off but audio continues. Press any key (except Power and Volume buttons) on your remote to turn the screen back on.

Reset Picture

MENU → Picture → Reset Picture → ENTER

Resets your current picture mode to its default settings.

❑ Changing the Preset Sound Modes

■ Sound Mode

MENU → Sound → Sound Mode → ENTER

Use the ▲/▼ buttons to select an option, and then press ENTER.

- Standard: Selects the normal sound mode.
- Music: Emphasizes music over voices.
- Movie: Provides the best sound for movies.
- Clear Voice: Emphasizes voices over other sounds.
- Amplify: Increase the intensity of high-frequency sounds to allow a better listening experience for the hearing impaired.

❑ Adjusting Sound Settings

■ Sound Effect

MENU → Sound → Sound Effect → ENTER

(standard sound mode only)

Use the ▲/▼ buttons to select an option, and then press ENTER.

- DTS TruSurround HD

  This function provides a virtual 5.1 channel surround sound experience through a pair of speakers using HRTF (Head Related Transfer Function) technology.

- **DTS TruDialog**

  This function allows you to increase the intensity of a voice over background music or sound effects so that dialog can be heard more clearly.

- **Equalizer**

  Use **Equalizer** to customize sound setting for each speaker.

  Balance L/R: Adjusts the balance between the right and left speaker.

  100Hz / **300Hz** / **1kHz** / **3kHz** / **10kHz** (Bandwidth Adjustment): Adjusts the volume level of specific bandwidth frequencies.

  Reset: Resets the equalizer to its default settings.

Speaker Settings

MENU → Sound → Speaker Settings → ENTER

- **Auto Volume**

  Normal equalizes the volume level on each channel, so that when you change channels, the volume level is the same.

  Night equalizes and decrease the volume level on each channel, so each channel is quieter. **Night** is useful at night, when you may want to keep the volume low.

  To use the volume control on the source device connected to the TV, set **Auto Volume** to **Off** on the TV. Otherwise, a change to the volume control of the source device may not be applied.

- **TV Installation Type**

  Specify the TV's installation type. Choose between **Wall Mount** and **Stand** to optimise the TV's sound automatically.

Reset Sound

MENU → Sound → Reset Sound → ENTER

Reset all sound settings to the factory defaults. Select **Reset Sound**, press **ENTER**, select **Yes** on the pop-up, and then press **ENTER** again.

❑ Executing initial setup

■ Setup

MENU → System → Setup → ENTER

Configure the channels and the time when setting up the TV for the first time or when resetting the unit.

- Execute the initial setup following instructions that the TV guides.
- Enter your 4-digit PIN, the default of which is 0-0-0-0.

❑ Setting the Time

■ Time

MENU → System → Time → ENTER

The current time will appear every time you press the **INFO** button.

- **Clock**: Set the clock to use the various timer features of the TV.

  If you disconnect the power cord, you have to set the clock again.

  Clock Mode: Set the current time **Manual** or **Auto**.

  - **Auto**: The TV sets the current time automatically using the time from a digital channel.

    You must have cable or an antenna connected to the TV to set the time automatically.

- **Manual**: Set the current time manually.

  Depending on the broadcast station and signal, the auto time set up may not be correct. In this case, set the time manually.

Clock Set: Set the **Date** and **Time**.

Select **Clock Set**. Select **Date** or **Time**, and then press **ENTER**↵. Use the number buttons or the ▲/▼ buttons to enter numbers. Use the ◀/▶ buttons to move from one entry field to the next. Press **ENTER**↵ when done.

Available only when **Clock Mode** is set to **Manual**.

You can set the **Date** and **Time** directly by pressing the number buttons on the remote control.

Time Zone: Select your time zone.

This function is only available when the **Clock Mode** is set to **Auto**.

❑ Using the Sleep Timer

MENU → System → Time → Sleep Timer → ENTER

- Sleep Timer TOOLS: Automatically shuts off the TV after a preset period of time. (30, 60, 90, 120, 150 and 180 minutes).

  Use the ▲/▼ buttons to select a period of time, and then press ENTER. To cancel the Sleep Timer, select Off.

❑ Setting the On/Off Timer

MENU → System → Time → On Timer <or> Off Timer → ENTER

Set On Timer so that your TV turns on automatically at a time and on a day of your choosing.

- On Timer: You can set up three separate On Timer configurations.

  You must set the clock before you can use On Timer.

  Setup: Select Off, Once, Everyday, Mon~Fri, Mon~Sat, Sat~Sun or Manual.

  If you select Manual, you can choose the days you want On Timer to turn on your TV.

  The ✓ mark indicates days you've selected.

Time: Set the hour, minute, am/pm. Use the number buttons or the ▲/▼ buttons to enter numbers. Use the ◀/▶ buttons to change entry fields.

Volume: Set the desired volume level. Use the ◀/▶ buttons to change the volume level.

Source: Specify which source to display when the TV turns on. The **TV** displays an air / cable broadcast. **USB** plays photos or music files from a USB device.

Selecting a source on a TV connected to a set-top box displays the channel from the set-top box.

The **USB** option can be selected if a USB device is connected to the TV.

✎ To select a source other than **TV** or **USB**, you must perform the following:

- Connect the cable or satellite set-top box to the AV port.
- Tune the set-top box to the channel you wish to display.
- Turn on the set-top box.

✎ If a source other than **TV** or **USB** is selected. The **Antenna** and **Channel** options disappear.

Antenna (when the **Source** is set to **TV**): Select **Air** or **Cable**.

Channel (when the **Source** is set to **TV**): Select the desired channel.

Music / **Photo** (when the **Source** is set to **USB**): Select a folder in the USB device containing the music or photo files you want to play when the TV turns on automatically.

- If there is no music file on the USB device or you don’t select a folder containing a music file, the Timer function does not operate correctly.
- If there is only one photo file in the USB, the Slide Show will not play.
- A folder with a name that is too long cannot be selected.
- Each USB device you use is assigned its own folder. When using more than one of the same type of USB device, make sure the folders assigned to each USB device have different names.
- It is recommended that you use a USB memory stick and a multi card reader when using **On Timer**.
- The **On Timer** function may not work with USB devices with a built-in battery, MP3 players, or PMPs made by some manufacturers because these devices take a long time to be recognized.

- **Off Timer**: You can set up three separate **Off Timer** configurations. (**Off Timer 1**, **Off Timer 2**, **Off Timer 3**)

  ✎ You must set the clock before you can use **Off Timer**.

  Setup: Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual**. If you select **Manual**, you can choose the days you want **Off Timer** to turn off your TV.

  ✎ The ✓ mark indicates days you've selected.

  Time: Set the hour, minute, and am/pm. Use the number buttons or the ▲/▼ buttons to enter numbers. Use the ◀/▶ buttons to change entry fields.

❑ Economical Solutions

■ Eco Solution

MENU → System → Eco Solution → ENTER

- Energy Saving (Off/Low/Medium/High): Lets yvou adjust the brightness of the TV in order to reduce power consumption.
- No Signal Power Off (Off / 15 min. / 30 min. / 60 min.): Sets how quickly the TV switches to standby mode if it is receiving no signal.

  Disabled when an attached PC is in power saving mode.
- Auto Power Off: The TV will automatically turn off if you don't press a button on the remote control or touch a button on TV within 4 hours.

  If the Auto Power Off option is set to Off, the TV will stay on even if no operations are performed on the TV

❑ Other Features

■ Menu Language

MENU → System → Menu Language → ENTER

Set the menu language.

1. Select Menu Language, and then press the ENTER button.
2. Choose a language, and then press the ENTER button.

   Choose English, Español, or Português.

Auto Protection Time

MENU → System → Auto Protection Time → ENTER

- Auto Protection Time (Off/2 hours/4 hours/8 hours/10 hours): If the screen remains idle with a still image for a certain period of time defined by the user, the screen saver is activated to prevent the formation of ghost images on the screen.

Change PIN

MENU → System → Change PIN → ENTER

The Change PIN screen will appear. Choose any 4 digits for your PIN and enter it in Enter New PIN. Re-enter the same 4 digits in Confirm New PIN. When the Confirm screen appears, press the Close button. The TV has memorized your new PIN.

- When you access the Change PIN function for the first time, the PIN input screen appears. Enter a 4 digit PIN you will remember.
- The default PIN number for a new TV set is “0-0-0-0”.
- If you forget the PIN code, press the remote control buttons in the following sequence in Standby mode, which resets the PIN to “0-0-0-0”: **MUTE** → 8 → 2 → 4 → **POWER** (on)

General

MENU → System → General → ENTER

- Game Mode (Off / On): When you have connected a game console such as PlayStation™ or Xbox™ to the TV, you can enjoy a more realistic gaming experience if you set Game Mode on.

Precautions and limitations for Game Mode

- Before disconnecting a game console and connecting another external device, set **Game Mode** to **Off**.
- If you display the TV menu in **Game Mode**, the screen shakes slightly.
- **Game Mode** is not available when you've set the input source to **TV**.
- Set **Game Mode** to **On** only after connecting a game console. If you turn Game Mode on before you have attached the game console, you may notice reduced picture quality.
- If **Game Mode** is **On**:
  - **Picture Mode** is set to **Standard** and **Sound Mode** is set to **Movie**.

- **Panel Lock**: Lock or unlock all the keys on the panel at once.
- **Boot Logo**: Display the Samsung logo when the TV is turned on.
- **AV Color System**: Normally the TV can receive image and sound with good quality when in the mode **Auto**. This mode detects the signal color system automatically. In case of some signal reception with color unsatisfactory, select the **AV Color System** Mode to **PAL-M**, **PAL-N** or **NTSC**.

  Available only in AV mode.

DivX® Video On Demand

MENU → System → DivX® Video On Demand → ENTER

Shows the registration code authorized for the TV. If you connect to the DivX web site and register with 10-digit registration code, you can download the VOD activation file. Once you play it using Media Play, the registration is completed.

For more information about DivX® VOD, visit “http://vod.divx.com”.

❑ Using the Source List

■ Source List

- **MENU** → Applications → Source List → **ENTER**
- When you press the **SOURCE** button, Source screen will be displayed at once.
- You can only choose external devices that are connected to the TV. In Source, connected inputs are highlighted.
- For the detailed information, refer to “Changing the Input Source” in User Manual

❑ Connecting a USB Device

1. Turn on your TV.
2. Connect a USB device containing photo, music and movie files to the USB port on the side of the TV.
3. When USB is connected to the TV, popup window appears. You can select the **Photos**, **Videos** or **Music** directly.

NOTE It might not work properly with unlicensed multimedia files.

NOTE Need-to-Know List before using Media Contents.

- MTP (Media Transfer Protocol) is not supported.
- The file system supports NTFS (Read Only), FAT16 and FAT32.
- Certain types of USB Digital camera and audio devices may not be compatible with this TV.
- Media Contents only supports sequential jpeg format.
- Media Contents only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Thumb drives, Flash Card Readers (USB HUB are not supported). Devices should be connected directly to the TV's USB port.

- Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
- The HDD (Hard Disk Drive) connected to USB is not supported.
- Do not disconnect the USB device while it is loading.
- The higher the resolution of the image, the longer it takes to display on the screen.
- The maximum supported JPEG resolution is 15360 x 8640 pixels.
- For unsupported or corrupted files, the “Not Supported File Format” message is displayed.
- The scene search and thumbnail functions are not supported in the **Videos**.

- MP3 files with DRM that have been downloaded from a non-free site cannot be played. Digital Rights Management (DRM) is a technology that supports the creation, distribution and management of the content in an integrated and comprehensive way, including the protection of the rights and interests of the content providers, the prevention of the illegal copying of contents, as well as managing billings and settlements.
- A USB device that requires high power (more than 500mA or 5V) may not be supported.
- If the TV has been no input during time set in **Auto Protection Time**, the screen saver will run.

- If a USB extension cable is used, the USB device may not be recognized or the files on the device may not be read.
- If a USB device connected to the TV is not recognized, the list of files on the device is corrupted or a file in the list is not played, connect the USB device to the PC, format the device and check the connection.
- If a file deleted from the PC is still found when Media Contents is run, use the “Empty the Recycle Bin” function on the PC to permanently delete the file.
- If the number of files and folders saved on a USB storage device is approximately over 4000, the files and folders may not appear and some folders may not be opened.

Disconnecting a USB Device

1. Press the **SOURCE** button.
2. Select a desired USB device, and then press the **TOOLS** button. The **Tools** menu appears.
3. Select **Remove USB**, and then wait until the selected USB device is disconnected. You can remove a USB device from the TV.

NOTE To remove a USB device from the TV, we recommend use **Remove USB** function.

❑ Using the Media Contents

MENU → Applications → Media Play → ENTER

Enjoy photos, music and movie files saved on a USB Mass Storage Class (MSC) device.

1. Press the **MEDIA.P** button.
2. Press ◀/▶ button to select desired menu, then press the **ENTER** button.
3. Press ◀/▶ button to select desired device, then press the **ENTER** button again.
4. Press the ▲/▼/◀/▶ button to select the desired file in the list, then press the **ENTER** button or ▶ (Play) button.

Playing the selected files

1. Press the ▲ button to select **Options** at the top of each main screen and select **Play Selected**.
2. Select the desired files.

   ✎ The check box appears to the left of the selected files.

   ✎ Press **ENTER**↵ button again to deselect the file.

3 Press the ▲ button to select **Play**.

   ✎ You can select or deselect all files pressing the **Select All** / **Deselect All**.

❑ Using the Soccer Mode

■ Soccer Mode

MENU → Applications → Soccer Mode → ENTER

This mode provides optimized condition for watching sports games.

- A (Zoom): Pause playback and divide the picture into 9 parts. Select a part to zoom it in. Press this button again to resume.

When the Soccer Mode is On, the picture and sound modes are set to Stadium automatically.

If you turn the TV off while watching Soccer Mode, the Soccer Mode will be disable.

When the Data Service is running, the Zoom is not available.

❑ Playing the Photos / Videos / Music

During playing a file, press the ▲/▼/◀/▶ button to select the desired menu.

- When the option menu is not displayed, press the **TOOLS** button or **ENTER**↵ button.
- You can also use ►/II/■/◄◄/►► buttons on the remote control during playback.
- If you press the **INFO** button during playback, you can view the playback information.

Playback menu

Button	Operation	Photos	videos	Music
❮ / ❯	Previous / Next	•		
▶ / ⏸	Start Slide Show / Stop Slide Show	•		
	Play / Pause	Mini Player*	•	•
⏮ / ⏭	Previous / Next	Mini Player*	•	•
⏪ / ⏩	Rewind / Fast forward		•	•

* When setting the Background Music to Mini Player in Photos, these buttons appear.

- Photos

Button	Operation	
	Slideshow Settings	You can set the Slideshow Speed and Slide Show Effect during the slide show.
	Zoom	You can zoom into images in full screen mode.
	Rotate	You can rotate images in full screen mode.
	Background Music / Mini Player	You can set background music when watching a slide show. / You can control simple playback menus.
	Settings	Picture Mode / Sound Mode: You can adjust the picture or sound setting. Information: You can see detailed information about the played file.

- During the slide show, all files in the file list will be displayed in order.
- When you press the ► (Play) button (or ▲ button → **Options** → **Slide Show**) in the file list, slide show will be started immediately.
- During the slide show, you can adjust the slide show speed using ◄◄ (REW) or ►► (FF) button.

- Supported Photo Formats

  For the details, refer to “Specifications” in User Manual.

- **Videos**

Button		Operation
	Search	**Search Titles**: You can move the other file directly. **Search Time bar**: You can search the video using ◀ and ▶ button at one minute interval or entering the number directly. It may not be supported depending on the input source.
	Repeat Mode	You can play movie files repeatedly.
	Picture Size	You can adjust the picture size to your preference.
	Settings	**Subtitle Settings**: You can play the video with subtitles. This function only works if the subtitles are the same file name as the video. **Picture Mode** / **Sound Mode**: You can adjust the picture or sound setting. **Audio Language**: You can change the audio language if the video has more than one language. **Information**: You can see detailed information about the played file.

- If video time information is unknown, play time and progress bar are not displayed.
- In this mode, you can enjoy movie clips contained on a Game, but you cannot play the Game itself.

- Supported Subtitle / Video Formats

  For the details, refer to “Specifications” in User Manual.

- **Music**

Button	Operation	
	Repeat	You can play music files repeatedly.
	Shuffle	You can play the music randomly.
	Sound Mode	You can adjust the sound setting.

Only displays the files with supported music file extension. Other file extensions are not displayed, even if they are saved on the same USB device.

If the sound is abnormal when playing music files, adjust the **Equalizer** in the **Sound** menu. (An over-modulated music file may cause a sound problem.)

- Supported Music Formats

  For the details, refer to “Specifications” in User Manual.

Setting the Encoding language

Set the encoding language if the text is not supported.

1. Press the ▲ button to select **Options** at the top of music main screen and select **Encoding**.
2. Select the desired encoding language.

❑ Viewing the e-Manual

■ e-Manual

MENU → Support → e-Manual → ENTER

You can read the introduction and instructions about the TV features stored in your TV.

For the detailed information about e-Manual Screen, refer to “How to view the e-Manual” in the User Manual.

❑ Using the Self Diagnosis

■ Self Diagnosis

MENU → Support → Self Diagnosis → ENTER

If you experience problems with the TV's picture or sound quality, run the Self Diagnosis function to check for video and audio signal output issues.

- Picture Test: Tests for picture issues. If the problem persists, check the color pattern. The Picture Test displays a test picture to examine it for flaws or faults. Please look carefully at the screen for the next 5 seconds, and then select Yes or No on the popup window.

Yes: If the test pattern does not appear or does appear but with noise, select **Yes**. This could indicate a problem with the TV. Contact Samsung's Call Center for assistance.

No: If the Self Diagnosis Picture Test is OK, your TV may not have a problem. Please follow steps below:

- Check your external devices and connections.
- Run the **Reset Picture** (**Picture** → **Reset Picture**).
- Run the **Software Update** (**Support** → **Software Update**).

- **Sound Test**: Use to check for sound problems. Sound test plays a built-in melody that tests both speakers.

  Yes: If you hear sound from just one of the speakers or you don't hear the sound at all, select **Yes**. This could indicate a problem with the TV.

  No: If the Self Diagnosis Sound Test is OK, please check your external devices and connections. If the problem persists, refer to the external devices' user manuals.

- **Signal Information**: (digital channels only) The reception quality of over-the-air HD channels is either perfect or the channels are unavailable. Signal Information displays HD channel signal strength so you can adjust your antenna to increase signal strength and receive HD channels.
- **Reset**: Reset all settings to the factory defaults.

  ✎ The PIN input screen appears before the setup screen.

  ✎ Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.

❑ Updating the Software

■ Software Update

MENU → Support → Software Update → ENTER

The Software Update menu lets you upgrade your TV's software to the latest version.

- Update now: Update software by downloading update files.

Upgrading to the Latest Version

Check your TV's software version and upgrade it if necessary.

The TV will turn off and on automatically after completing the software upgrade. All video and audio settings return to the default settings after a software upgrade.

❑ Changing the Use Mode

■ Use Mode

MENU → Support → Use Mode → ENTER

Select the Use Mode suitable for your place. We strongly recommend you select Home Use.

- Home Use: Home Use is the default setting.
- Store Demo: Store Demo is for retail environments only. If you select Store Demo, some functions will not work, and the picture settings will be reset every 5 minutes.

❑ Viewing the Contact Samsung

■ Contact Samsung

MENU → Support → Contact Samsung → ENTER

View this information when your TV does not work properly or when you want to upgrade the software. You can find information regarding our call centers and how to download products and software.